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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,576	03/31/2000	Robert G. Field	SUN1P252/P4198	2536

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EXAMINER

KISS, ERIC B

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/540,576

Applicant(s)

FIELD ET AL.

Examiner

Eric B. Kiss

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20 and 24-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20041101.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 December 2004 has been entered.

Claims 20 and 24-32 are pending.

Requirement for Information Under 37 CFR 1.105

2. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

a. In response to this requirement, please provide a copy of each of the following items of art referred to in the declaration under 37 CFR §1.132, filed 9 December 2004:

- i) Please provide copies of the "engineering documents relating to the May 1998 'Early access' of the Java Platform Debugger Architecture (Jbug)," referred to in item 7 of said declaration.
- ii) Please provide copies of the "engineering documents relating to the Beta 1 testing (December 1998) and Beta 2 testing (March 20, 1999) development period of the Java Debugger Architecture (Jbug)," referred to in item 12 of said declaration.

b. In response to this requirement, please provide the following the following technical information concerning the disclosure and factual information pertinent to patentability:

- i) Please identify which, if any, of the disclosed software products (“Beta 1” and “Beta 2”) embody the claimed feature of automatically generating the front and back-end debugger program portions based on the parsing of a formal specification. Additionally, please provide copies, and specify the relevant section(s), of any available documentation supporting this feature in identified software product(s).
- ii) Please provide details of the supervision and control policies governing the “Beta 1” testing and “Beta 2” testing of the Java Platform Debugger Architecture (also known as JPDA or JBUG).

3. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant’s disclosure.

4. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant’s first complete communication responding to this requirement. Any supplemental replies subsequent to the first

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communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

5. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

6. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

Priority

7. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. §119(e) as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application); the disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

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Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 20 and 24-32 of this application.

As was stated in the final rejection mailed 10 June 2004 (see pages 3-4),

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed does not appear to provide express support under 35 U.S.C. 112 for claims 20 and 24-32 of this application, and, in particular, those features related to parsing a formal specification and generating front-end and back-end debugger portions.

Applicant is invited to indicate those sections of the provisional application's disclosure that provide support for such features. However, it is noted that the Examiner has maintained that such features would have been either inherent or otherwise obvious to one of ordinary skill in the computer art at the time the invention was made (see the rejection applied in the previous office action, which is maintained and reproduced below). Therefore, the Examiner presumes Applicant's priority claim is valid based on those missing features being inherently part of, or obvious over, the disclosure of the provisional application (accepting that the provisional application is sufficient in providing adequate support under 35 U.S.C. §112 for claims 20 and 24-32). Should Applicant fail to provide an indication of supporting portions of the provisional application, as originally filed, then the Examiner will maintain that the priority claim is valid only on the basis that the above-referenced features are either inherent or otherwise would have been obvious to one of ordinary skill in the computer art at the time the invention was made, and accordingly, Applicant's arguments (see, for example, sections C and D of Applicant's appeal brief filed March 23, 2004) that such features are a novel and non-obvious improvement, would be moot.

Applicant has asserted that the features relating to "automatically generating the front and back-end of the debugger program portions based on the parsing of a formal specification" were not present in the Early Access release of the Java Platform Debugger Architecture, also known as JPDA or JBUG (see, for example, Applicant's statements filed 9 December 2004, on page 4, in paragraph 3). The Examiner takes these statements as a claim by Applicant that such a feature should not be considered inherent to arriving at a working embodiment of the invention described in provisional application 60/145,136.

Applicant has further failed to provide any indication of where such features are supported in the originally filed specification, namely the provisional application, 60/145,136, filed July 21, 1999, despite the invitation by the Examiner to provide such clarification (see the Final Rejection mailed 10 June 2004, page 4, second paragraph). In fact, in apparent recognition of the lack of support for those features in the provisional application, Applicant has chosen to address the issues set forth in the previous Office action "without relying on the priority claimed from the provisional application" (see p. 2, second paragraph, of Applicant's remarks).

Information Disclosure Statement

8. The information disclosure statement filed 1 November 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it does not contain an appropriate statement under 37 CFR 1.97(d),(e). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Applicant's information disclosure statement, containing both statements under 37 CFR 1.97(e) with unchecked boxes next to each such statement, is considered to not provide the requisite statement under 1.97(d),(e) as Applicant has not indicated, via the appropriate check box, that either statement is applicable.

Response to Amendment

9. The declaration under 37 CFR 1.132 filed 9 December 2004 is insufficient to overcome the rejection of claims 20 and 24-32 based upon a public use of the invention under 35 U.S.C. 102(b), or, in the alternative, under 35 U.S.C. 103(a) as obvious over the evidence of public as set forth in the last Office action because:

Among other reasons, Applicant has not sufficiently qualified the beta versions of the Jbug software as experimental use.

The presence or absence of a confidentiality agreement is not itself determinative of the public use issue, but is one factor to be considered along with the time, place, and circumstances of the use which show the amount of control the inventor retained over the invention. *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1265, 229 USPQ 805, 809 (Fed. Cir. 1986).

The statutory bars of 35 U.S.C. 102(b) are applicable even though public use or on sale activity is by a party other than an applicant. Where an applicant presents evidence of experimental activity by such other party, the evidence will not overcome the prima facie case under 35 U.S.C. 102(b) based upon the activity of such party unless the activity was under the supervision and control of the applicant. *Magnetics v. Arnold Eng 'g Co.*, 438 F.2d 72, 74, 168 USPQ 392, 394 (7th Cir. 1971), *Bourne v. Jones*, 114 F.Supp. 413, 419, 98 USPQ 206, 210 (S.D. Fla. 1951), aff'd., 207 F.2d 173, 98 USPQ 205 (5th Cir. 1953), cert. denied, 346 U.S. 897, 99 USPQ 490 (1953); contra, *Watson v. Allen*, 254 F.2d 342, 117 USPQ 68 (D.C.Cir. 1957). In other words, the experimental use activity exception is personal to an applicant.

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Applicant has not established the nature and extent of any supervision and control over the beta testing process. The mere fact that one of the inventors has “no reason to believe that the non-disclosure agreement of the Jbug Beta Software License was violated by any of the testers during the Beta 1 or Beta 2 testing,” is not sufficient to establish that the testing was properly supervised and controlled. Further, the provided declaration fails to establish that inventor Robert Field was in any way directly involved in the testing (other than having read the Jbug Beta Software License and unspecified “engineering documents”) or otherwise has any personal knowledge of the test supervision and control.

Response to Arguments

10. Applicant's arguments filed 9 December 2004 have been fully considered but they are not persuasive.

a. As an initial matter, in response to Applicant's allegation that several “new issues” were raised in the Final Rejection mailed 10 June 2004 (see Applicant's statements filed 9 December 2004, on page 2, in paragraph 1, and on page 4, in paragraph 2), the Examiner respectfully submits that Applicant has been fully aware of each of the software releases cited by the Examiner, as each was described in Applicant's provisional application (see the first 8-page portion titled “Java™ Platform Debugger Architecture – RC1 Readme”). The evidence provided by the Examiner merely served to establish an approximate date of release for each software product, as Applicant has not been compelled to provide such information. Further, as the public use bar under 35 U.S.C. §102(b) has been an official basis for claim rejections set forth and

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maintained in the past five (5) Office actions (the Final Rejection mailed 10 June 2004; the Final Rejection mailed 24 September 2003; the Non-final Rejection mailed 10 April 2003; the Advisory Action mailed 11 February 2003; and the Final Rejection mailed 20 November 2002), the Examiner believes that Applicant has had sufficient time to fully consider the issue.

b. In response to Applicant's arguments on page 2, in the last paragraph, continuing through page 4, line 6, as was stated in the Final Rejection mailed 10 June 2004, on page 9,

Applicant's affirmative statements (see again, Applicant's remarks on p. 5 of the Amendment After Final, filed March 23, 2004) are taken as a showing that the presenters (including non-inventor James McIlree) in no way mentioned or suggested inputting and parsing the formal specification, generating a front-end debugger program portion from the formal specification, and generating a back-end debugger program portion from the formal specification, and automatically generating both the front-end and back-end components of a debugging system based on the same formal specification. However, these statements are not sufficient in showing that these features were not incorporated into any publicly available software or described in any documentation (such as the Early Access version of the Java™ Platform Debugger Architecture).

As was further stated in the Final Rejection mailed 10 June 2004, on pages 12-13,

Applicant has affirmed that the cited presentation did not include any discussion of inputting the formal specification into a code generator, parsing the formal specification, and generating the JAVA front-end debugger program portion and back-end JAVA debugger program portion from the formal specification after parsing (see again, Applicant's remarks on p. 5 of the Amendment After Final, filed March 23, 2004). The Examiner provides the following support for the rejection under 35 U.S.C. §103(a), correcting this deficiency. It is noted that the front-end and back-end debugger program portions are disclosed as based on an implementation of the JDWP specification. Official Notice is taken that in order to arrive at a machine-readable implementation of a human-readable specification, a compilation process comprising parsing the input specification and generating the output code would have been used and such a process is well known and commonly practiced in the computer art. An exemplary description of this practice can be found in Alfred V. Aho, et al., "Compilers, Principles, Techniques, and Tools," 1986, Addison-Wesley (hereinafter *Aho et al.*). For instance, Fig. 1.9 on page 10 of *Aho et al.* shows the phases of such a compilation process, including syntax analysis (or parsing) and code generation. The alternative to compiling is writing the code directly in assembly language or binary machine language, which is typically impractical. Therefore, it would have been obvious to one having ordinary skill in the computer art at the time the invention was made to incorporate parsing and code generation into the

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disclosed implementation as a widely accepted means to achieve such an implementation. The act of compiling source code is exceedingly well known in the computer art, as are the basic components, including parsers and code generators, that typical compilers comprise. The cited text of *Aho et al.* provides an introductory teaching of compilers and their components and as such, provides a description of a compiler, and proper motivation to use a compiler in translating computer code.

In view of the above-cited portions of the previous Office action, it is submitted that Applicant's arguments are moot, as the apparent absence of the claimed features relating to "automatically generating the front and back-end debugger program portions based on the parsing of a formal specification" in the March 26, 1998 presentation has been addressed through the applied teachings of Aho et al., and Applicant's response has failed to argue this ground of rejection (under 35 U.S.C. §103(a)).

c. In response to Applicant's arguments on page 4, in paragraph 3, Applicant has affirmed that the May 1998 "Early access" of the Java Platform Debugger Architecture (also known as JPDA or JBUG) did not embody the claimed features of "automatically generating the front and back-end debugger program portions based on the parsing of a formal specification". As Applicant is in the best position to accurately state which features were or were not present in their own software product, the Examiner accepts the affirmative statements of Applicant. However, it is noted that the Examiner is unable to reach the same conclusions as Applicant with regard to the clarity and implication of the statement, "JDWP now formally specified and mechanically generated," as recited in provisional application 60/145,136. Further, the affirmative statements, absent of any discussion of how the JDWP was implemented in the Early access product, do not address the rejection under 35 U.S.C §103(a) based on the applied teachings of Aho et al.

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d. In response to Applicant's arguments on page 4, in the last paragraph, continuing through page 6, line 2, see the discussion above in regard to the insufficiency of the declaration under 37 CFR 1.132 filed 9 December 2004. As discussed in more detail above, and as entirely applicable to Applicant's arguments, Applicant has not sufficiently qualified the beta versions of the Jbug software as experimental use.

Claim Rejections - 35 USC §§ 102(b), 103(a)

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

It should be noted that 35 U.S.C. 102(b) may create a bar to patentability either alone, if the device in public use or placed on sale anticipates a later claimed invention, or in conjunction with 35 U.S.C. 103, if the claimed invention would have been obvious from the device in conjunction with the prior art. *LaBounty Mfg. v. United States International Trade Commission*, 958 F.2d 1066, 1071, 22 USPQ2d 1025, 1028 (Fed. Cir. 1992).

12. Claims 20 and 24-32 are rejected under 35 U.S.C. 102(b) based upon a public use of the invention or, in the alternative, under 35 U.S.C. 103(a) as obvious over the evidence of public use presented below in view of Alfred V. Aho, et al., "Compilers, Principles, Techniques, and Tools," 1986, Addison-Wesley (hereinafter *Aho et al.*).

12.1. Evidence of public use

The following is a summary of the evidence available to the Examiner that suggests that the claimed invention was known and in public use more than one year prior to the instant application's effective filing date, *i.e.*, March 31, 2000, the filing date of the non-provisional application:

- a. On March 26, 1998, Robert Field and Gordon Hirsch (named inventors in the instant application), together with James McIlree (presumed not to be an inventor since he is not listed in the instant application), gave a presentation titled "The New Java™ Platform Debugger Architecture" at the Moscone Convention Center in San Francisco, California, at approximately 12:15pm, said presentation lasting approximately one hour. This is corroborated by "JavaOne 1998 Presentation" (submitted in Information Disclosure Statement filed October 30, 2002 and hereinafter *Slideshow*), along with "Birds of a Feather, '98 JavaOne conference schedule", (cited in previous office actions and hereinafter *Schedule*).

The Examiner presumes that Mr. Field, Mr. Hirsch, and Mr. McIlree did not limit their presentation to merely showing the slides (as provided by the Applicant in an Information Disclosure Statement at the Examiner's request) to their audience without any further explanation, discussion, and/or demonstration. The Examiner will, of course, fully consider any affirmative statement from Applicant attesting otherwise.

Applicant has repeatedly affirmed that this cited presentation did not include any discussion or demonstration of "automatically generating the front and back-end

debugger program portions based on the parsing of a formal specification". This deficiency has been addressed in the alternative ground of rejection, *i.e.*, the rejection under 35 U.S.C. §103(a) in view of the teachings of Aho et al., maintained and detailed below.

b. At least three releases of Java™ Platform Debugger Architecture software and/or documentation describing such software were made available prior to the instant application's effective filing date, *i.e.*, March 31, 2000, the filing date of the non-provisional application. This is corroborated by mentions of "Beta 2", "Beta 1", and "Early Access" versions of the Java™ Platform Debugger Architecture in Applicant's provisional application (see the first 8-page portion titled "Java™ Platform Debugger Architecture – RC1 Readme").

Evidence discovered by the Examiner suggests that the release dates of the above-mentioned software and/or documentation are at least as early as:

- i. "Early Access" – May 1998 (see "Java News from May, 1998", cited in a previous action; and further see "java-security@sun.com archives – May 1998 (#162)", cited in a previous action)
- ii. "Beta 1" – December 29, 1998 (see "Java News from December, 1998", cited in a previous action)
- iii. "Beta 2" – March 20, 1999 (see "Java News from March, 1999", cited in a previous action).

As Applicant's priority claim to provisional application 60/145,136 is denied, as discussed previously in this action, the effective filing date of the instant application is March 31, 2000, and all three software embodiments may qualify as prior art and public use under 35 U.S.C. §102(b).

It is again noted that Applicant has affirmed that the May 1998 "Early access" of the Java Platform Debugger Architecture (also known as JPDA or JBUG) did not embody the claimed features of "automatically generating the front and back-end debugger program portions based on the parsing of a formal specification". These features are considered obvious under 35 U.S.C. §103(a) in view of the teachings of Aho et al., maintained and detailed below. Applicant has made no affirmation, to date, that such claimed features were not embodied in the Beta 1 or Beta 2 products.

12.2. Discussion of evidence of public use

As was stated in the Final Rejection mailed September 24, 2003 (Paper No. 17) at p. 9, lines 18-23:

Again, if convincing evidence can be brought forward showing that the above-cited presentation did not, in fact, disclose the same invention which is presently claimed **nor was the presently claimed invention embodied in any product made available or otherwise demonstrated or discussed prior to one year before the instant application's filing date**, then the Examiner will rest his case and withdraw the rejections under 35 U.S.C. §102(b), based on public use of the invention [emphasis added].

The primary basis for the maintained rejections of claims 20 and 24-32 is the public use bar under 35 U.S.C. §102(b). The slides from presentation titled "The New Java™ Platform Debugger Architecture," given in a public forum on March 26, 1998, have been previously cited

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as evidence supporting the rejection. Applicant has affirmed that the features not disclosed in the presentation on March 26, 1998, include: inputting and parsing the formal specification, generating a front-end debugger program portion from the formal specification, and generating a back-end debugger program portion from the formal specification, and automatically generating both the front-end and back-end components of a debugging system based on the same formal specification (see Applicant's remarks on p. 5 of the Amendment After Final, filed March 23, 2004). However, in view of further evidence of public use discovered by the Examiner and presented above, the rejection of claims 20 and 24-32 is maintained.

The main issue presented by the Examiner is not whether the slides teach the claim features, but rather whether those claimed features were publicly disclosed or otherwise made available to the public more than one year prior to the instant application's effective filing date. Below is a clarified version of the discussion of the presentation slide evidence that was provided in previous Office actions. Note that corrected slide citations have been provided. To avoid future confusion, the Examiner hereinafter refers to the individual slides by the page numbers provided in Appendix B of Applicant's appeal brief (B-1 through B-9).

Applicant's affirmative statements (see again, Applicant's remarks on p. 5 of the Amendment After Final, filed March 23, 2004) are taken as a showing that the presenters (including non-inventor James McIlree) in no way mentioned or suggested inputting and parsing the formal specification, generating a front-end debugger program portion from the formal specification, and generating a back-end debugger program portion from the formal specification, and automatically generating both the front-end and back-end components of a debugging system based on the same formal specification. Additionally, as described above, a

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similar affirmation has been made with regard to the Early access product. However, these statements are not sufficient in showing that these features were not incorporated into any publicly available software or described in any documentation (such as the Beta 1 and Beta 2 versions of the Java™ Platform Debugger Architecture).

The cited presentation (given in a public forum on March 26, 1998; see *Schedule*, p. 34) disclosed:

Claim 20

a formal specification defining a high level debugging communication protocol written in JAVA Debug Wire Protocol (JDWP) declarative specification language (see, for example, pages B-7 and B-8 of *Slideshow*);

a front-end debugger program portion comprising JAVA programming language code running on a first virtual machine (see, for example, pages B-7 and B-9 of *Slideshow*);

a back-end JAVA debugger program portion comprising C language code controlling and communicating with a second virtual machine (see, for example, pages B-3 through B-7 of *Slideshow*); and

the JAVA front-end debugger program and JAVA back-end debugger program being compatible with each other (see, for example, pages B-7 and B-8 of *Slideshow*);

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Claim 24

sending events generated in the second virtual machine to the front-end via the back-end debugger program code portion (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claim 25

the front-end reading and parsing events from the back-end debugger code portion (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claim 26

the front-end processing module performing operations related to requests made through the front-end debugger program by the debugger application program (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claim 27

the front-end processing module writing formatted requests (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claims 28 and 31

the back-end processing module performing operations related to event processing and request processing (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claim 29

the event processing operations including sending an event which was generated through the virtual machine debugging interface to the front-end debugging portion (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*);

Claim 30

the request processing operations including reading and parsing formatted requests from the front-end debugger program portion (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*); and

Claim 32

the front-end debugger program portion including a class which is used by the front-end debugger program portion to send and receive information over the debugging communication protocol (see, for example, pages B-5 and B-7 through B-9 of *Slideshow*).

Applicant has affirmed that the cited presentation did not include any discussion of inputting the formal specification into a code generator, parsing the formal specification, and generating the JAVA front-end debugger program portion and back-end JAVA debugger program portion from the formal specification after parsing (see again, Applicant's remarks on p. 5 of the Amendment After Final, filed March 23, 2004). The Examiner provides the following

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support for the rejection under 35 U.S.C. §103(a), correcting this deficiency. It is noted that the front-end and back-end debugger program portions are disclosed as based on an implementation of the JDWP specification. In order to arrive at a machine-readable implementation of a human-readable specification, a compilation process comprising parsing the input specification and generating the output code would have been used and such a process is well known and commonly practiced in the computer art. An exemplary description of this practice can be found in Alfred V. Aho, et al., "Compilers, Principles, Techniques, and Tools," 1986, Addison-Wesley (hereinafter *Aho et al.*). For instance, Fig. 1.9 on page 10 of *Aho et al.* shows the phases of such a compilation process, including syntax analysis (or parsing) and code generation. The alternative to compiling is writing the code directly in assembly language or binary machine language, which is typically impractical. Therefore, it would have been obvious to one having ordinary skill in the computer art at the time the invention was made to incorporate parsing and code generation into the disclosed implementation as a widely accepted means to achieve such an implementation. The act of compiling source code is exceedingly well known in the computer art, as are the basic components, including parsers and code generators, that typical compilers comprise. The cited text of *Aho et al.* provides an introductory teaching of compilers and their components and as such, provides a description of a compiler, and proper motivation to use a compiler in translating computer code.

Conclusion

13. This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement

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for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EBK / EBK
January 21, 2005



TUAN DAM
SUPERVISORY PATENT EXAMINER